

CLAIMS

1. A computer-controlled arrangement for housing a large number of milking animals, each of which belongs to one of a plurality of groups, said arrangement comprising:

- 5 - a resting area (1) wherein the milking animals are allowed to rest;
- a feeding area (3) wherein the milking animals are fed; and
- a milking area (5) housing at least one milking robot for milking the milking animals, characterized in that
- 10 - at least one of said resting area (1) and said feeding area (3) is partitioned in sections (7, 9, 11, 13; 41, 43, 45, 47), the number of which corresponds to the number of said groups, to which said milking animals belong; and
- a device (19; 53) provided for automatically directing each
- 15 of said milking animals moving towards said at least one of said resting area (1) and said feeding area (3), which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging
- 20 to one only of said groups.
2. The arrangement of claim 1 wherein said milking area (5) houses a plurality of milking boxes, each of which being adapted to receive a respective milking animal, wherein said at least one milking robot is adapted to milk milking animals
- 25 present in the milking boxes concurrently.

3. The arrangement of claim 1 or 2 wherein said milking area (5) houses a plurality of milking robots for milking the milking animals.

4. The arrangement of any of claims 1-3 wherein the milking area (5) is arranged so that said milking animals have to pass said milking area (5) when moving from said resting area (1) to said feeding area (3).

5. The arrangement of any of claims 1-4 wherein said at least one of said resting area (1) and said feeding area (3), which is partitioned in sections, includes said resting area (1).

6. The arrangement of claim 5 wherein

- said large number of milking animals are allowed to move about freely in said feeding area (3); and

- said device provided for directing includes a milking animal identification device (23) provided for identifying each milking animal presenting itself in front of said device provided for directing, and a device provided for opening at least one gate (21) depending on said milking animal identification.

7. The arrangement of claim 5 or 6 wherein said device provided for directing includes a plurality of passage ways (25, 27, 29, 31) from said feeding area (3) to said resting area (1).

8. The arrangement of claim 7 wherein said plurality of passage ways from said feeding area (3) to said resting area (1) are arranged in at least two floors to effectively use available space and to provide for short passage ways.

9. The arrangement of any of claims 5-8 when dependent on claim 3 wherein

- each of said sections, in which said resting area (1) is partitioned, is linked to said milking area (5) so that the milking animals housed in the respective section have access to a subset only of said plurality of milking robots; and

5 - a device (55) provided for automatically enlarging or reducing each of the respective subsets of the plurality of milking robots, to which milking animals housed in the respective section have access, depending on the number of milking animals housed in the respective section, or on the
10 milking capacity required by the milking animals housed in the respective section.

10. The arrangement of any of claims 1-4 wherein said at least one of said resting area (1) and said feeding area (3), which is partitioned in sections, includes said feeding area (3).

15 11. The arrangement of claim 9 wherein

- said large number of milking animals are allowed to move about freely in said resting area (1); and

- said device provided for directing includes a milking animal identification device (23) provided for identifying each
20 milking animal presenting itself for milking in said milking area (5), and a device provided for opening at least one gate (21), optionally after the milking animal has been milked, depending on said milking animal identification.

25 12. The arrangement of any of claims 1-11 wherein milking animals having similar milk production belong to one of said plurality of groups.

13. The arrangement of any of claims 1-12 wherein milking animals being in similar phases of the lactation cycle belong to one of said plurality of groups.

5 14. The arrangement of any of claims 1-13 wherein milking animals on heat belong to one of said plurality of groups.

15. The arrangement of any of claims 1-14 wherein gestation milking animals belong to one of said plurality of groups.

16. The arrangement of any of claims 1-15 wherein infected or ill milking animals belong to one of said plurality of groups.

10 17. The arrangement of any of claims 1-16 further comprising driving means (33), particularly a movable fence, partition, wire or live wire, for driving milking animals in said resting area (1) towards said milking area (5).

15 18. The arrangement of any of claims 1-17 wherein said large number of milking animals is at least about 200.

19. The arrangement of any of claims 1-18 comprising means for altering the belonging from one to another one of said plurality of groups for at least one of said milking animals.

20 20. The arrangement of any of claims 1-19 comprising means (55, 57) for automatically altering the partitions in sections of said at least one of said resting area (1) and said feeding area (3).

25 21. A computer-controlled arrangement for housing a large number of milking animals, each of which belongs to one of a plurality of groups, said arrangement comprising:

- a resting area (1) wherein the milking animals are allowed to rest;

- a feeding area (3) wherein the milking animals are fed; and

- a milking area (5) housing at least one milking robot for milking the animals and a plurality of milking boxes, each of which being adapted to receive a respective milking animal, wherein said at least one milking robot is adapted to milk milking animals present in said plurality of milking boxes concurrently, characterized in that

- said resting area (1) is partitioned in sections (7, 9, 11, 13), each of which being adapted to house milking animals belonging to one of said plurality of groups, and each of which being linked to said milking area (5) so that milking animals housed in the respective section have access to a subset only of said plurality of milking boxes; and

- a device (55) provided for automatically enlarging or reducing each of the respective subsets of the plurality of milking boxes, to which milking animals housed in a section have access, depending on the number of milking animals housed in the respective section or on the milking capacity required by the milking animals housed in the respective section.

22. The arrangement of claim 21 wherein said milking area (5) houses a plurality of milking robots, each of which being adapted to milk milking animals present in at least one of said plurality of milking boxes.

23. The arrangement of claim 21 or 22 wherein said device provided for automatically enlarging or reducing each of the respective subsets of the plurality of milking boxes comprises at least one computer-controlled movable partition means (55), particularly a movable fence, partition, wire or live wire.

24. The arrangement of any of claims 21-23 wherein the milking area (5) is arranged so that said milking animals have to pass said milking area (5) when moving from said resting area (1) to said feeding area (3).

5 25. The arrangement of any of claims 21-24 further comprising driving means (33), particularly a movable fence, partition, wire or live wire, for driving milking animals in at least one of said sections of said resting area (1) towards said milking area (5).

10 26. The arrangement of any of claims 21-25 wherein milking animals having similar milk production, milking animals being in similar phases of the lactation cycle, milking animals on heat, gestation milking animals, or ill milking animals belong to one of said plurality of groups.

15 27. The arrangement of any of claims 21-26 wherein

- said large number of milking animals are allowed to move about freely in said feeding area (3) or in said milking area (5); and

20 - said arrangement further comprises a device (53) provided for automatically directing each of said milking animals moving towards said resting area (1), which is partitioned in sections, into one of said sections depending on the group, to which the respective milking animal belongs, so that each of said sections will house milking animals belonging to one of
25 said groups, wherein

- said device provided for directing includes a milking animal identification device provided for identifying each milking animal presenting itself in front of said device provided for

directing, and a device provided for opening at least one gate (53) depending on said milking animal identification.